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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/594,862

09/29/2006

Cheng Tao

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EXAMINER

DAZENSKI, MARC A

ART UNIT

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2621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/594,862	Applicant(s) TAO ET AL.	
	Examiner MARC DAZENSKI	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 0209 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings were received on 27 August 2009. These drawings are acceptable.

Specification

The specification heading amendments were received in preliminary amendment dated 29 September 2006. These amendments are accepted and have been entered.

Response to Arguments

Applicant's arguments filed 27 August 2009 have been fully considered but they are not persuasive.

On pages 7-8 of the remarks, Applicant argues that "Schumann does not disclose generating an inter-coded picture having change information for selected blocks containing a picture information representative of a new recording," and further that "nowhere does Schumann disclose the feature of generating an inter-coded picture having no change information for predefined blocks, and having change information for selected blocks containing a picture information representative for a new recording on the video recording medium." The examiner respectfully disagrees. Schumann discloses that under the MPEG-2 standard, P-frames use motion compensation to provide compression, and that further these P-frames contain self-contained information

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as well as information that is based on predicted changes to the image (see column 1, lines 39-45). Further, the previously cited sections of Schumann disclose encoded a P-frame, which reads on the "generating" limitation of the claim. Because Schumann discloses generating P-frames and because these P-frames contain blocks comprising "change" information for predefined/selected blocks, the examiner maintains that the previously cited section of Schumann does in fact read on the limitations of claim 1.

On page 8 of the remarks, Applicant argues that "Schumann does not disclose the feature of storing both the intra-coded picture and the inter-coded picture as menu information on the video recording medium." The examiner notes that Schumann discloses in numerous places throughout the disclosure (e.g., column 5, lines 1-24) that the I-frame and P-frame are used together to form a menu. While Applicant is correct in that Schumann fails to disclose the explicit recording of this information onto a video recording medium, the examiner notes that Frimout (US Patent 7,046,260) does in fact disclose the missing limitations. Therefore, Applicant's arguments are moot in view of the new grounds of rejection appearing below.

On pages 8-9 of the remarks, Applicant uses similar logic in regards to claim 9. The examiner maintains that, in view of the previously cited section and the arguments presented above, that Schumann does in fact anticipate the claim.

On pages 9-10 of the remarks, Applicant argues that "nowhere does Frimout disclose the feature of a recording unit equipped to record the predefined intra-coded picture and the inter-coded picture onto the recording medium." The examiner respectfully disagrees, and points to column 3, lines 19-31 as disclosing a recording unit

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recording information onto the recording medium (wherein the "background" data reads on the claimed "predefined intra-coded picture data" and the "key frame picture data" reads on the claimed "inter-coded picture"). Further, Applicant argues that "Frimout does not appear to disclose the further feature...of generating an inter-coded picture using an output of the intra-coded picture memory as basis and an output of the representative picture memory as changes to be recorded." The examiner respectfully disagrees.

First, the examiner notes that as written, the claim is grammatically incorrect and it is unclear as to what exactly the output of the intra-coded picture memory is "basis" for (i.e., the term "as basis" in and of itself does not specifically define how the output of the intra-coded picture is being utilized). Second, Frimout discloses that the key frame is a scaled version of the background image (see e.g., column 3, lines 66 through column 4, line 19), and therefore the inter-coded picture is generated based on the output of the intra-coded picture memory. Thus, Frimout anticipates all limitations of the claim.

A full rejection of the pending claims appears below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 6-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Frimout et al (US Patent 7,046,260), hereinafter referred to as Frimout.

Regarding **claim 6**, Frimout discloses menu generating method and recording device for a record carrier. Further, Frimout discloses a menu picture generating method and a recording for recording a menu picture on a record carrier, the menu composed of a background still-picture and overlay according to the MPEG standard, which reads on the claimed, "device for generating a menu for a video recording medium, the menu being coded according to a standard using base pictures and predicted pictures," as disclosed in the abstract and at column 1, lines 28-31;

RAM (15) for storing recording and/or reproducing data and background and key frame picture data, which reads on the claimed, "the device having a predefined intra-coded picture memory, a representative picture memory," as disclosed at column 3, lines 19-31;

Assembling unit (12) for assembling a background picture read from the RAM (15) and a scaled encoded key frame picture applied from an MPEG encoder (13), which reads on the claimed, "an encoder for generating an inter-coded picture using an output of the intra-coded picture memory as basis and an output of the representative picture memory as changes to be recorded," as disclosed at column 3, lines 60-67; and,

disc drive unit (11) for recording onto a recordable optical disc (20), which reads on the claimed, "a recording unit equipped to record the predefined intra-coded picture

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and the inter-coded picture onto the recording medium," as disclosed at column 3, lines 19-31.

Regarding **claim 7**, Frimout discloses everything claimed as applied above (see claim 7). Further, the limitations of the claim are rejected in view of the explanation set forth in claim 6 above.

Regarding **claim 8**, Frimout discloses everything claimed as applied above (see claim 7). Further, Frimout discloses assembling a background picture and a keyframe, as well as scaling unit (16) which reads a selected key frame and performs a scaling operation, which reads on the claimed, "where for generating the picture information representative for new recording a picture from an encoder display buffer is duplicated into an extra memory area during the new recording, and the picture in the extra memory area is subsampled after the new recording has been terminated," as disclosed at column 3, line 60 through column 4, line 19.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schumann et al (US Patent 6,078,328), hereinafter referred to as Schumann, in view of Frimout et al (US Patent 7,046,260), hereinafter referred to as Frimout.

Regarding **claim 1**, Schumann discloses a compressed video graphics system and methodology. Further, Schumann discloses utilizing MPEG-2 graphics data as well as an audio/video stream from a DVD to generate a menu, which reads on the claimed, "method for generating a menu for a video recording medium, the menu being coded according to a standard using base pictures and predicted pictures," as disclosed at column 3, lines 58-67 and exhibited in figures 1 and 2; the method comprising:

implementing an MPEG-2 I-frame as a base image to which is added one or more temporary MPEG-2 P-frames containing one or more graphical elements, the foreground images being used to encode a complete MPEG-2 P-frame, and the frames are combined to form a menu and menu items, which reads on the claimed, "starting with a predefined intra-coded picture consisting of blocks, generating an inter-coded picture having no change information for predefined blocks, and having change information for selected blocks containing a picture information representative for a new recording on the video recording medium," as disclosed at column 3, lines 16-25; column 4, lines 25-28; column 7, lines 4-7; and exhibited in figure 3; and,

the I-frame and P-frame are used together to form a menu, which reads on the claimed, "storing both the intra-coded picture and the inter-coded picture as menu information," as disclosed at column 5, lines 1-24.

Schumann, however, fails to disclose that both the intra-coded picture and the inter-coded picture are stored *on the video recording medium*. The examiner maintains that it was well known to include the missing limitations, as taught by Frimout.

In a similar field of endeavor, Frimout discloses a menu generating method and recording device for a record carrier. Further, Frimout discloses a new menu picture being encoded and recorded to the appropriate area on the disc in the event of a new recording being added to the existing disc, which reads on the claimed, “storing...on the video recording medium,” as disclosed at column 1, lines 41-58.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the compressed video graphics system and methodology of Schumann to include a new menu picture being encoded and recorded to the appropriate area on the disc in the event of a new recording being added to the existing disc, as taught by Frimout, for the purpose of reducing a processing burden by eliminating the need for “on the fly” menu generation.

Regarding **claim 2**, the combination of Schumann and Frimout discloses everything claimed as applied above (see claim 1). Further, Frimout discloses presenting a menu with specific key frames, each one representing a track or recording, and the assembling step is performed by replacing entire portions of the background picture by new portions which represent the scaled at least one key frame picture, which reads on the claimed, “wherein a picture information representative for more than one recording is used for generating the inter-coded picture,” as disclosed at column 1, lines 33-40; column 2, lines 15-34; and exhibited in figures 3 and 4.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Schumann and Frimout to include presenting a menu with specific key frames, each on representing a track or

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recording, and the assembling step is performed by replacing entire portions of the background picture by new portions which represent the scaled at least one key frame picture, as taught by Frimout, for the purpose of assembling a menu in the compressed picture domain so as to use a very limited amount of memory.

Regarding **claim 3**, the combination of Schumann and Frimout discloses everything claimed as applied above (see claim 1). Further, Frimout discloses each time a new recording is added to the disc, an entirely new background picture needs to be assembled, which can be done by adding the new key frame to the old background picture, which reads on the claimed, "wherein the menu is updated with information related to another recording on the video recording medium by generating an inter-coded picture having changes only for selected blocks containing picture information representative for the respective recording," as disclosed at column 1, lines 36-40.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Schumann and Frimout to include each time a new recording is added to the disc, an entirely new background picture needs to be assembled, which can be done by adding the new key frame to the old background picture, as taught by Frimout, assembling a menu in the compressed picture domain so as to use a very limited amount of memory.

Regarding **claim 4**, the combination of Schumann and Frimout discloses everything claimed as applied above (see claim 1). Further, Schumann discloses there may be multiple graphic elements to be combined with each background image, which

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reads on the claimed, "wherein an inter-coded picture is added to the previous inter-coded picture," as disclosed at column 8, lines 4-9 and exhibited in figure 3.

Regarding **claim 5**, the combination of Schumann and Frimout discloses everything claimed as applied above (see claim 1). Further, Frimout discloses assembling a background picture and a keyframe, as well as scaling unit (16) which reads a selected key frame and performs a scaling operation, which reads on the claimed, "where for generating the picture information representative for new recording a picture from an encoder display buffer is duplicated into an extra memory area during the new recording, and the picture in the extra memory area is subsampled after the new recording has been terminated," as disclosed at column 3, line 60 through column 4, line 19.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Schumann and Frimout to include assembling a background picture and a keyframe, as well as scaling unit (16) which reads a selected key frame and performs a scaling operation, as taught by Frimout, for the purpose of assembling a menu in the compressed picture domain so as to use a very limited amount of memory.

Regarding **claim 9**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

Regarding **claim 10**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above (wherein "utilizing MPEG-2 graphics data as well

as an audio/video stream from a DVD to generate a menu" reads on the limitations of the claim, and further wherein figure 3 of Frimout reads on the limitations of the claim).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC DAZENSKI whose telephone number is (571)270-5577. The examiner can normally be reached on M-F, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571)272-7905. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2621

/MARC DAZENSKI/
Examiner, Art Unit 2621